

WHAT IS CLAIMED IS:

1. A positioning system for guiding a medical device to a location where a pulmonary vein extends from an atrium, comprising:

5 a transeptal sheath;

a deflectable catheter having proximal and distal end portions, wherein the medical device is disposed along the distal end portion, and wherein the deflectable catheter is configured to be torquable and steerable; and

10 a pullwire integrated within the deflectable catheter that is adapted to deflect at least a portion of the distal end portion such that the deflectable catheter may be advanced through the transeptal sheath and directed into the pulmonary vein by manipulation of the pullwire along the proximal end portion.

2. The positioning system of claim 1, wherein the medical device further comprises an electrode element.

15 3. The positioning system of claim 2, wherein the electrode element comprises a mapping electrode.

4. The positioning system of claim 2, wherein the electrode element comprises an ablation electrode.

20 5. The positioning system of claim 2, wherein the electrode element comprises both a mapping electrode and an ablation electrode.

6. The positioning system of claim 2, wherein the electrode element is an RF ablation element.

7. The positioning system of claim 1, wherein the medical device further comprises an ablation element.

25 8. The positioning system of claim 6, wherein the ablation element comprises a microwave ablation element.

9. The positioning system of claim 6, wherein the ablation element comprises a cryogenic ablation element.

30 10. The positioning system of claim 6, wherein the ablation element comprises a thermal ablation element.

11. The positioning system of claim 6, wherein the ablation element comprises a light-emitting ablation element.

12. The positioning system of claim 6, wherein the ablation element comprises an ultrasound transducer.

5 13. The positioning system of claim 6, wherein the ablation element is adapted to form a linear lesion.

14. The positioning system of claim 6, wherein the ablation element is adapted to form a circumferential lesion.

10 15. The positioning system of claim 14, wherein the ablation element is adapted to form the circumferential lesion at the location.